

Notice of Allowability

Applicati n N .

10/033,919

Examiner

Fritz Alphonse

Applicant(s)

MURATA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment after final filed 11/12/2004.
2. ☒ The allowed claim(s) is/are 3-19.
3. ☒ The drawings filed on 03 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

GUY J. LAMARRE
PRIMARY EXAMINER

DETAILED ACTION

REASONS FOR ALLOWANCE

1. After further search and thorough examination of the present application claims 3-19 are found to be in condition for allowance over the prior art of record.

The following is an Examiner's statement of reasons for allowance: the claimed invention relates to a display device having an SRAM in a pixel. A write voltage equivalent to white or black represented by a tone level of a normal display area is converted into a write voltage corresponding to a brightest white display or a darkest black display in a pixel, and is held in the SRAM of each pixel.

The first cited reference, Sato (U.S. Pat. No. 5,712,652) discloses a liquid crystal display device for displaying high definition pictures under a low power consumption. The second cited reference, Okumura (U.S. Pat. No. 5,945,972) discloses a display device that has memory circuits each of which stores an image signal for a respective one of the pixels and that controls the writing of image signals into the pixels from the memory circuits in accordance with control signals.

As to independent claim 3, none of the cited references either singular or in combination discloses "data memory portion converts video data equivalent to any one of white and black represented by the tone level of the normal display area into binary data corresponding to any one of the brightest white display and the darkest black display in the pixel portion, and holds the binary data". In addition, none of the cited references either singular or in combination teaches about "wherein normal display is carried out with the write voltage represented by the tone level of the normal display area, and static image display is carried out with the write voltage, which is held in the data memory

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portion and corresponds to any one of the brightest white display and the darkest black display in the pixel portion”.

As to independent claim 9, none of the cited references either singular or in combination teaches a display device having an SRAM in a pixel, wherein “normal display is carried out with the write voltage represented by the tone level of the normal display area, and static image display is carried out with the write voltage, which is held in the data memory portion and corresponds to any one of the brightest white display and the darkest black display in the pixel portion.”

These limitations, in conjunction with all other limitations of the base claims were not shown by, would not have been obvious over, would have been fairly suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

2. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.


3. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fritz Alphonse

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December 10, 2004



GUY J. LAMARRE
PRIMARY EXAMINER